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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	10/614,716		
Filing Date	07/07/03		
First Named Inventor	Sreenivasan et al.		
Group Art Unit	1732		
Examiner Name	Unassigned		
Attorney Docket Number	P90/MII-51-33V50		

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EC	A1	4,724,222		Feldman	02-09-1988	
	A2	4,731,155		Napoli et al.	03-15-1988	
	A3	5,425,848		Haisma et al.	06-20-1995	
	A4	5,669,303		Maracas et al.	09-23-1997	
	A5	5,772,905		Chou	06-30-1998	
	A6	5,900,160		Whitesides et al.	05-04-1999	
	A7	5,948,470		Harrison et al.	09-07-1999	
	A8	6,039,897		Lochhead et al.	03-21-2000	
	A9	6,309,580		Chou	10-30-2001	
4	A10	6,334,960		Willson et al.	01-01-2002	
EC	A11	6,518,168	T	Clem et al.	02-11-2003	
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**Examiner Name** 

**Attorney Docket Number** 

**FOREIGN PATENT DOCUMENTS** Foreign Patent Document Pages, Columns, Lines, Date of Publication of Name of Patentee or Applicant of Examiner Kind Code Where Relevant Cited Document MM-DD-YYYY Cite Cited Document Passages or Relevant Initials\* Office<sup>1</sup> Number<sup>4</sup> (if known) Figures Appear 07-13-1978 2800476 Lamprecht et al. A12 DE EX 08-08-1989 1-196749 Matsumoto et al. A13 JP wo 01/69317 Montelius et al. 09-20-2001 A14 wo 01/79592 Hallberg et al. 10-25-2001 A15 Heidari 11-29-2001 01/90816 wo A16

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				Application Number	10/614,716	
INF	ORMATION	N DIS	CLOSURE	Filing Date	07/07/03	
STATEMENT BY APPLICANT				First Named Inventor	Sreenivasan et al.	
				Group Art Unit	1732	
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Sheet	3	of	5	Attorney Docket Number	P90/MII-51-33V50	

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Exam Initial		Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
Ž	Z	A17	KRUG et al., "Fine Patterning of Thin Sol-Gel Films," Journal of Non-Crystalline Solids, 1992, pp. 447-450, vol. 147 & 148.	
		A18	Krauss et al., "Fabrication of Nanodevices Using Sub-25nm Imprint Lithography," Appl. Phys. Lett 67(21), 3114-3116, 1995	
		A19	CHOU et al., "Imprint of Sub-25 nm Vias and Trenches in Polymers," Applied Physics Letters, November 20, 1995, pp. 3114-3116, vol. 67(21).	
	ч.	A20	CHOU et al., "Imprint Lithography with 25-Nanometer Resolution," Science, Apr. 5, 1996, pp. 85-87, vol. 272.	
		A21	HAISMA et al., "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," Journal of Vacuum Science and Technology, Nov/Dec 1996, pp. 4124-4128, vol. B 14(6).	
		A22	CHOU et al., "Imprint Lithography with Sub-10nm Feature Size and High Throughput," Microelectronic Engineering, 1997, pp. 237-240, vol. 35.	
		A23	FELDMAN et al., "Wafer chuck for manification correction in x-ray lithography," American Vacuum Society, 1998, pp. 3476-3479.	
		A24	SCHEER et al., "Problems of the Nanoimprinting Technique for Nanometer Scale Pattern Definition,"  Journal of Vacuum Science and Technology, Nov/Dec 1998, pp. 3917-3921, vol. B 16(6).	
		A25	COLBURN. et al., "Step and Flash Imprint Lithography: A New Approach to High-Resolution Patterning", Proc. of SPIE, 1999, pp. 379-389, vol. 3676.	
·		A26	CHOU et al., "Lithographically-Induced Self Assembly of Periodic Polymer Micropillar Arrays," Journal of Vacuum Science and Technology, Nov/Dec 1999, pp. 3197-3202, vol. B 17(6).	
	EC	A27	RUCHHOEFT et al., "Patterning Curved Surfaces: Template Generation by Ion Beam Proximity Lithography and Relief Transfer by Step and Flash Imprint Lithography," Journal of Vacuum Science and Technology, 1999, pp. 2965-2982, vol. 17.	

Examiner Signature	Date Considered 5/29/06
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

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				First Named Inventor	Sreenivasan et al	
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Sheet	4	of	5	Attorney Docket Number	P90/MII-51-33V50	

- NON PATENT LITERATURE DOCUMENTS	
Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
CHOI et al., "Design of Orientation Stages for Step and Flash Imprint Lithography," Precision Engineering,	
Journal of the International Societies for Precision Engineering and Nanotechnology, 2001, pp. 192-199, vol. 25.	
CHOI et al., "High Precision Orientation Alignment and Gap Control Stages for Imprint Lithography Processes," U.S. Patent Application 09/698,317. Filed with USPTO on October 27, 2000.	
SREENIVASAN et al., "High-Resolution Overlay Alignment Methods and Systems for Imprint Lithography," U.S. Patent Application 09/907,512. Filed with USPTO on July 16, 2001.	
CHOI et al., "Method and System of Automatic Fluid Dispensing for Imprint Lithography Processes," U.S. Patent Application 09/908,455. Filed with USPTO on July 17, 2001.	
CHOI et al., "Methods for High-Precision Gap and Orientation Sensing Between a Transparent Template and Substrate for Imprint Lithography," U.S. Patent Application 09/920,341. Filed with USPTO on August 1, 2001.	
BAILEY et al., "Template for Room Temperature Low Pressure Micro- and Nano-Imprint Lithography," U.S. Patent Application 09/976,681. Filed with USPTO on October 12, 2001.	
VOISIN, "Methods of Manufacturing a Lithography Template," U.S. Patent Application 10/136,188, Filed with USPTO on May 1, 2002.	
SREENIVASAN et al., "Step and Repeat Imprint Lithography Systems," U.S. Patent Application 10/194,414. Filed with USPTO July 11, 2002.	
SREENIVASAN et al., "Step and Repeat Imprint Lithography Processes," U.S. Patent Application 10/194,99. Filed with USPTO July 11, 2002.	
OTTO M. et al., "Step and Repeat UV-Nanoimprint Lithography: Material Issues," Nanoimprint and Nanoprint Technology Conference, San Francisco, December 11-13, 2002.	
JOHNSON, et al., "Advances in Step and Flash Imprint Lithography, " SPIE Microlithography Conference, February 23-28, 2003.	
7   1	Nanoprint Technology Conference, San Francisco, December 11-13, 2002.  JOHNSON, et al., "Advances in Step and Flash Imprint Lithography, " SPIE Microlithography Conference,

Examiner Signature	En /	Date Considered	5/29/06
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STAT	STATEMENT BY APPLICANT			First Named Inventor	Sreenivasan et al.
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Sheet	5	of	5	Attorney Docket Number	P90/MII-51-33V50

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Examiner Initials*	Cite No.	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		CHOI et al., "A Chucking System and Method for Modulating Shapes of Subtrates," U.S. Patent Application	' I
EL	A39	10/293,224. Filed with USPTO on November 13, 2002.	
<del>                                     </del>	<u> </u>	VOISIN, "Methods of Inspecting A Lithography Template," U.S. Patent Application 10/293,919. Filed with	
	A40	USPTO on November 13, 2002	
<del></del>		CHOI et al., "A Method For Modulating Shapes of Substrates," U.S. Patent Application 10/316,963. Filed	
	A41	with USPTO on December 11, 2002.	
_		NIMMAKAYALA et al., "Magnification Correction Employing Out-of-Plane Distortion of a Substrate," U.S.	
∀	A42	Patent Application 10/735,110. Filed with USPTO on December 12, 2003.	
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			Application Number Filling Date First Named Inventor Art Unit Examiner Name	Sreenivasan et al.	
S			Art Unit	1732	
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Examiner	Cite	Description 1		DOCUMENTS	Kanad Ashara Taran
initials*	No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentize or Applicant of Cited Document	Peges, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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EL	B1	US- 2004/0163563-A1	8/26/2004	Sreenivasan et al.	1
	<b>B2</b>	US- 2004/0168586-A1	9/2/2004	Bailey et al.	
	B3	US- 4,722,878	2/2/1988	Watakabe et al.	
V	B4	US- 2002/0175298-A1	11/28/2002	Moniwa et al.	
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				Application Number	10/614,716
				Filing Date	July 7, 2003
STA	TEMENT E	BY A	PPLICANT	First Named Inventor	Sreenivasan et al.
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Sheet	2	of	2	Attorney Docket Number	P90-32V30

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Initials"	No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
EL	<b>B</b> 5	U.S. App. No. 10/687,519, filed 10/16/2003, entitled: Low Surface Energy Template, naming Inventors Nguyen et al.	
	В6	U.S. App. No. 10/666,527, filed 9/18/2003, entitled: Imprint Lithography Templates having Alignment Marks, naming Inventors Bailey et al.	
	B7	U.S. App. No. 10/670,980, filed 9/25/2003, entitled: Imprint Lithography Template having Opaque Alignment Marks, naming inventors Sreenivasan et al.	
	B8	U.S. App. No. 10/706,537, filed 11/12/2003, entitled: Formation of Conductive Templates Employing Indium Tin Oxide, naming Inventors Sreenivasan et al.	
	<b>B</b> 9	U.S. App. No. 10/833,240, filed 4/27/2004, entitled: Compliant Template for UV Imprinting, naming Inventors Watts et al.	
	B10	U.S. App. No. 10/895,214, filed 7/20/2004, entitled: Imprint Alignment Method, System, and Template, naming Inventor Voison	
	B11	U.S. App. No. 10/917,761, filed 8/13/2004, entitled: A Moat System for an Imprint Lithography Template, naming Inventors McMackin et al.	
	B12	U.S. App. No. 11/051,941, filed 2/4/2005, entitled: Imprint Lithography Template to Facilitate Control of Liquid Movement, naming Inventors McMackin et al.	
	B13	U.S. App. No. 10/788,700, filed 2/27/2004, entitled: Full-Wafer or Large Area Imprinting with Multiple Separated Sub-Fields for High Throughput Lithography, naming Inventors Sceenivasan et al.	
V	B14	U.S. App. No. 10/760,821, filed 1/20/2004, entitled: Method for Concurrently Employing Differing Materials to Form a Substrate, naming Inventors Sreenivasan et al.	

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Sheet 1

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Application Number 10/614,716

Filing Date 07/07/2003

First Named Inventor Sreenivasan et al.

Art Unit 1732

Examiner Name Unassigned

Attorney Docket Number P90-32V30

			U. S. PATENT	DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2 (f known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
EL	C1	<sup>US-</sup> 2003/0113638-A1	6/19/2003	Mancini et al.	
ı	C2	<sup>US-</sup> 6,716,754-B2	4/6/2004	Hofmann et al.	
	C3	<sup>US-</sup> 6,517,977-B2	2/11/2003	Resnick et al.	
	C4	US- 2002/0135099-A1	9/26/2002	Robinson et al.	
	C5	US- 5,849,222	12/15/1998	Jen et al.	
	C6	<sup>US-</sup> 6,391,217-B2	5/21/2002	Schaffer et al.	
.:	C7	<sup>US-</sup> 6,696,220-B2	2/24/2004	Bailey et al.	
	C8	US- 2002/0177319-A1	11/28/2002	Chou	
	C9	<sup>US-</sup> 6,518,189-B1	2/11/2003	Chou	
	C10	<sup>US-</sup> 6,713,238-B1	3/30/2004	Chou et al.	
	C11	<sup>US-</sup> 6,646,662-B1	11/11/2003	Nebashi et al.	
	C12	<sup>US-</sup> 6,776,094-B1	8/17/2004	Whitesides et al.	
	C13		9/19/2002	Chou	
	C14	us- 2002/0167117-A1	11/14/2002	Chou	
	C15	us- 6,482,742-B1	11/19/2002	Chou	
	C16	US- 2003/0080471-A1	5/1/2003	Chou	
	C17	US- 2004/0036201-A1	2/26/2004	Chou et al.	
1	C18	US- 6,828,244	12/7/2004	Chou	
4	C19		10/26/2004	Chou	

		FORE	IGN PATENT DOC	JMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
110.		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T
EL	C20	WO 2004/016406	2/26/2004	Sreenivasan		
	C21	WO 00/21689	4/20/2000	Chou et al.		
	C22	JP 02-92603	4/3/1990	Kurikawa et al.		
$\Box$	C23	JP 02-24848	1/26/1990	Kamio		
	C24	WO 01/47003	6/28/2001	Steiner et al.		
4	C25	WO 02/07199	1/24/2002	Chou		

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Sheet 2

## **INFORMATION DISCLOSURE** STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of |4

Complete if Known						
Application Number	10/614,716					
Filing Date	07/07/2003					
First Named Inventor	Sreenivasan et al.					
Art Unit	1732					
Examiner Name	Unassigned					
Attorney Docket Number	P90-32V30					

Examiner	Cite	Document Number	Publication Date	T DOCUMENTS  Name of Patentee or	Pages, Columns, Lines, Where
Initials* No.1		Number-Kind Code <sup>2 (f known)</sup>	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
EC	C26	<sup>US-</sup> 2004/0197843-A1	10/7/2004	Chou et al.	
	C27	<sup>US-</sup> 2004/0156108-A1	8/12/2004	Chou et al.	
	C28	US- 2004/0137734-A1	7/15/2004	Chou et al.	
	C29	<sup>US-</sup> 2004/0131718-A1	7/8/2004	Chou et al.	
	C30	<sup>US-</sup> 2004/0118809-A1	6/24/2004	Chou et al.	
	C31	<sup>US-</sup> 2004/0046288-A1	3/11/2004	Chou	
	C32	<sup>US-</sup> 2003/0080472-A1	5/1/2003	Chou	
	C33	<sup>US-</sup> 2003/0034329-A1	2/20/2003	Chou	
7	C34	<sup>US-</sup> 2002/0042027-A1	4/11/2002	Chou et al.	
	C35	<sup>US-</sup> 6,580,172-B2	6/17/2003	Mancini et al.	
	C36	<sup>US-</sup> 4,512,848	4/23/1985	Deckman et al.	
	C37	<sup>US-</sup> 6,517,995-B1	2/11/2003	Jacobenson et al.	
	C38	<sup>US-</sup> 2004/0110856-A1	6/10/2004	Young et al.	
	C39	us- 5,028,366	7/2/1991	Harakal et al.	
	C40	US- 5,601,641	2/11/1997	Stephens	
4	C41	<sup>US-</sup> 5,849,209	12/15/1998	Kindt-Larsen et al.	
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		FORE	IGN PATENT DOCL	JMENTS		
Examiner Cit		Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	Γ
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>8</sup> (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T
EC	C42	WO 2004/114016	12/29/2004	Chou et al.		
	C43	WO 99/05724	2/4/1999	Chou et al.		
	C44	WO 03/010289	2/6/2003	Chou et al.		L
	C45	WO 03/079416	9/25/2003	Chou		
	C46	WO 03/099536	12/4/2003	Chou et al.		
	C47	WO 2004/013693	2/12/2004	Watts et al.		Г

Examiner Signature	Conta	Date Considered	5/29/06

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STA	ATEMENT I	BY A	PPLICANT	First Named Inventor	Sreenivasan et al.			
	Ales es monus et			Art Unit	1732			
	(Use as many sh	leeus as n	ecessary)	Examiner Name	Unassigned			
Sheet	3	of	4	Attorney Docket Number	P90-32V30			

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
EC	C48	Heidari, "Nanoimprint Lithography at the 6 in. Wafer Scale," J. Vac. Sci. Technol. B 18(6), pp. 3557 - 3560, 11/1/2000.	
	C49	Translation of Japanese Patent 02-92603	
	C50	Translation of Japanese Patent 02-24848	
	C51	Chou et al., "Ultrafast and Direct Imprint of Nanostructures in Silicon," Nature, Col. 417, (June 2002), pp. 835-837, 6/1/2002.	
	C52	Chou et al., "Nanoimprint Lithography,"Journal of Vacuum Science Technology B 14(16), pp. 4129-4133, 11/1/1996.	
	C53	Colburn et al., "Development and Advantages of Step-and-Flash Lithography," Solid State Technology, 7/1/2001.	
	C54	Colburn et al., "Characterization and Modeling of Volumetric and Mechanical Properties for Step and Flash Imprint Lithography Photopolymers," Journal of Vacuum Science Technology. Vol b. 19(6), 11/1/2001.	
	C55	Bailey et al., "Step and Flash Imprint Lithography: Defect Analysis," Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001.	
	C56	Bailey et al., "Step and Flash Imprint Lithography: Template Surface Treatment and Defect Analysis," Journal of Vacuum Science, B 18(6), pp. 3572-3577, 11/1/2000.	
V	C57	Schneider et al., "Stripes of Paritally Fluorinated Alkyl Chains: Dipolar Langmuir Monolayers."	

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Signature	7m	Considered	7/29/06

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE rwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449/PTO **Application Number** 10/614,716 INFORMATION DISCLOSURE **Filing Date** 07/07/2003 STATEMENT BY APPLICANT First Named Inventor Sreenivasan et al. Art Unit 1732 (Use as many sheets as necessary) **Examiner Name** Unassigned Attorney Docket Number Sheet P90-32V30 of

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
B	C58	Resnick et al., "High Resolution Templates for Step and Flash Imprint Lithography," Journal of Microlithography, Microfabrication, and Microsystems. Vol 1. No. 3., 10/1/2002	
EL.	C59	Chou, "Nanoimprint Lithography and Lithographically Induced Self-Assembly," MRS Bulletin, pp. 512 - 517, 7/1/2001.	
EL	C60	Colburn et al., "Step and Flash Imprint Lithography for sub-100 nm Patterning," Proceedings of SPIE Vol. 3997, pp. 453 - 457, 1/1/2000.	

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	IFORMATION			APPLICATION NUMBER	10/614,716	
3	IMIEMENI	DI AFFLI	CANI	FILING DATE	07/07/2003	
(u	se as many shee	ls as necessa	(Y)	FIRST NAMED INVENTOR	Sreenivasan et al.	
	·			Group Art Unit	1722	
Sheet	1	of	3	Examiner Name	Heckenberg Jr., Donald H.	
				Attorney Docket Number	P90-32V30	

		U.S. Patent Dr			Date of Publication of	Pages, Columns, Lines,
Examinar triliats*	Cite No.1	Number	Kind Code <sup>4</sup> (# known)	Name of Patentee or Applicant of Ched Document	Cited Document NIM-DD-YYYY	Where Relevant Passages of Relevant Figures Appear
EC	D1	5,206,983	· -	Guckel et al.	5/4/1993	
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	D2	6,117,708	<u> </u>	Wensel	9/12/2000	
	D3	6,316,290	B1	Wensel	11/13/2001	
	D4	6,355,198	B1	Kim et al.	3/12/2002	
	D5	6,387,787	B1	Mancini et al.	5/14/2002	
	D6	2004/0021866	A1	Watis et al.	2/5/2004	
	D7	2004/0022888	A1	Sreenivasan et al.	2/5/2004	
	D8	2003/0205657	A1	Voisin	11/6/2003	
	D9	2004/0124566	A1	Sreenivasan et al.	7/1/2004	
	D10	2004/0192041	A1	Jeong et al.	9/30/2004	•
	D11	6,190,929	B1	Wang et al.	2/20/2001	•
	D12	5,849,222		Jen et al.	12/15/1998	
	D13	2005/0064344	A1	Bailey et al.	3/24/2005	
	D14	2005/0057379	A1	Sreenivasan et al.	3/31/2005	
	D15	2004/0250945	A1	Zheng et al.	12/16/2004	
	D16	5,477,058		Sato	12/19/1995	•
17	D17	2005/0084804	A1	Truskett et al.	4/21/2005	

**Examiner** Date Signature Considered

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	IFORMATIO		_	APPLICATION NUMBER	10/614,716	
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(U	se as many shee	ets as necessa	ny)	FIRST NAMED INVENTOR	Sreenivasan et al.	
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Sheet	2	of	3	Examiner Name	Heckenberg Jr., Donald H.	
				Attorney Docket Number	P90-32V30	

Exeminer	Cile No.1	U.S. Patent Do		Name of Patentee or Applicant	Date of Publication of	Pages, Columns, Lines, Where Retenant
Iniliats*		Number	Kind Code <sup>®</sup> (# known)	of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear
EL	D18	2005/0037143	A1	Chou et al.	2/17/2005	
1	D19	2005/0098534	A1	Sreenivasan et al.	5/12/2005	. 149
	D20	8,900,881		Sreenivasan et al.	5/31/2005	
	D21	6,890,888	92	Mancini et al.	5/10/2005	
$\neg \vdash$	D22	6,908,861	B2	Sreenivasan et al.	6/21/2005	
	D23	6,916,684	B2	Sreenivasan et al.	7/12/2005	
	D24	2003/0062334	A1	Les et al.	4/3/2003	
4	D25	6,932,934	B2	Choi et al.	8/23/2005	
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Substitute for form 1449A/PTO				Complete if Known		
	ORMATION			APPLICATION NUMBER	10/614,716	
517	ATEMENT B	T APPLIC	ANI	FILING DATE	07/07/2003	
(use	as many sheets	as necessary	y)	FIRST MAMED INVENTOR	Sreenivasan et al	
				Group Art Unit	1722	
Sheet	3	of	3	Examiner Name	Heckenberg Jr., Donald H.	
			•	Attorney Docket Number	P90-32V30	

Cita No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), data, page(s), volume-tssue number(s), publisher, city and/or country where published.	۲,
D26	SHIBUICHI ET AL., Super Water- and Oil-Repellent Surfaces Resulting from Fractal Structure, Journal of Colloid and Interface Science, Vol. 208, no. 1, pp. 287-294 12/1/1998	
027	TANIGUCHI ET AL., Diamond Nanoimprint Lithography, Nanotechnology, 2002, vol. 13, no. 5, pp. 592-596(5) 1/1/2002	
D28	KIYOHARA ET AL., Abstract of Plasma Etching of CVD Diamond Films using an ECR-type Oxygen Source, http://www.iop.org/EJ/abstract/0957-4484/10/4/304 9/26/2003	
D29	APPLICATION NO. 11/126,946, naming inventors Choi et al., entitled Formation of Discontinuous Films During an Imprint Lithography Process, filed 5/11/2005	
D30	APPLICATION NO. 11/127,041, naming Inventors Sreenivasan et al., entitled Step and Repeat imprint Lithography Processes, filed 5/11/2005	
.D31	APPLICATION NO. 11/127,060, naming Inventors Sreenivasan et al., entitled Step and Repeat Imprint Lithography Systems, filed 5/11/2005	
032	APPLICATION NO. 11/136,897, naming inventors Miller et al., entitled imprint Lithography Template Having a Coating to Reflect and/or Absorb Actinic Energy, filed 5/25/2005	
D33	THOMPSON ET AL., Fabrication of Step and Flash Imprint Lithography Templates Using Commercial Mask Processes, SPIE Microlithography Conference 2/1/2003	
	D26 D27 D28 D29 D30 .D31	item (book, magazine, journal, serial, symposium, cafalog, etc.), data, page(s), volume-Issue number(s), publisher, city and/or country where published.  SHIBUICHI ET AL., Super Water- and Oil-Repellent Surfaces Resulting from Fractal Structure, Journal of Colloid and Interface Science, Vol. 208, no. 1, pp. 287-294 12/1/1998  TANIGUCHI ET AL., Diamond Nanoimprint Lithography, Nanotechnology, 2002, vol. 13, no. 5, pp. 592-596(5) 1/1/2002  KIYOHARA ET AL., Abstract of Plasma Etching of CVD Diamond Films using an ECR-type Oxygen Source, http://www.lop.org/EJ/abstract/0957-4484/10/4/304 9/26/2003  APPLICATION NO. 11/128,946, naming inventors Choi et al., entitled Formation of Discontinuous Films During an imprint Lithography Process, filed 5/11/2005  APPLICATION NO. 11/127,041, naming inventors Sreenivasan et al., entitled Step and Repeat Imprint Lithography Processes, filed 5/11/2005  APPLICATION NO. 11/127,060, naming inventors Sreenivasan et al., entitled Step and Repeat Imprint Lithography Systems, filed 5/11/2005  APPLICATION NO. 11/136,897, naming inventors Miller et al., entitled Imprint Lithography Template Having a Coeting to Reflect and/or Absorb Actinic Energy, filed 5/25/2005  THOMPSON ET AL., Fabrication of Step and Flash Imprint Lithography Templates Using

Examiner Signature	Enl	Date Considered	5/29/06	
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Substit	ute for form 1449	A/PTO .		Complete if Known		
	INFORMATION STATEMENT			APPLICATION NUMBER	10/614,716	
	SIAIEMEN	DIAPPLI	CANT	FILING DATE	07/07/2003	
/	(use as many she	eets as necessa	nry)	FIRST NAMED INVENTOR	Sreenivasan et al.	
		· · ·	<del></del>	Group Art Unit	1756	
Sheet	1	of	7	Examiner Name	Christopher G. Young	
				Attorney Docket Number	P90-32V30	

				U.S. PATENT DOCUMEN	TS	
Examiner Initials*	Cite No.1	U.S. Patent Document Kind Code <sup>2</sup> Number (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
El	E1	4,959,252		Bonnebat et al.	9/25/1990	
	E2	5,110,514	<del> </del>	Soane	5/5/1992	
<del></del>	E3	5,240,550		Boehnke et al.	8/31/1993	
	E4					
		5,259,926	<del> </del>	Kuwabara et al.	9/9/1993	
	E5	5,348,616	_	Hartman et al.	9/20/1994	
	E6	5,480,047		Tanigawa et al.	1/2/1996	
	E7	5,512,131		Kumar et al.	4/30/1996	
	E8	5,545,367		Bae et al.	8/13/1996	
	E9	5,776,748		Singhvi et al.	7/7/1998	
	E10	5,888,650		Calhoun et al.	3/30/1999	
	E11	5,952,127		Yamanaka	9/14/1999	
	E12	6,046,056		Parce et al.	4/4/2000	
	E13	6,051,345		Huang	4/18/2000	
	E14	6,074,827		Nelson et al.	6/13/2000	
	E15	6,218,316	B1	Marsh	4/17/2001	
	E16	4,201,800		Alcom et al.	5/6/1980	
7	E17	6,274,294	B1	Hines	8/14/2001	

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Examiner Signature	GRE	Date Considered	5/29/06

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901:04. ² Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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(u	se as many she	ets as necessa	rry)	FIRST NAMED INVENTOR	Sreenivasan et al.		
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Sheet	Sheet 2 of 7		Examiner Name	Christopher G. Young			
				Attorney Docket Number	P90-32V30		

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Ĕ	E18	6,326,627	B1 .	Putvinski et al.	12/4/2001	
	E19	2004/0150129		Hougham et al.	8/5/2004	
	E20	2004/0202865		Homola et al.	10/14/2004	
	E21	5,937,758		Maracas et al.	8/17/1999	
	E22	5,726,548		Chiba et al.	3/10/1998	
	E23	2002/0069525	A1	Hada et al.	6/13/2002	
	E24	5,508,527		Kuroda et al.	4/16/1996	
	E25	5,876,550		Feygin et al.	3/2/1999	
	 E26	5,785,918		Hull	7/28/1998	
	E27	5,171,490		Fudim	12/15/1992	
	E28	6,753,131	B1 ·	Rogers et al.	6/22/2004	•
	E29	5,956,216		Chou	9/21/1999	
	E30	5,820,769		Chou	10/13/1998	
	E31	2001/0023042	A1	Dirksen et al.	9/20/2001	
	E32	2005/0100830	A1	Xu et al.	5/12/2005	
	E33	2005/0051742	A1	Shiraishi	3/10/2005	
V	 E34	6,153,886		Hagiwara et al.	11/28/2000	

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(u	se as many shee	ets as necessa	ny)	FIRST NAMED INVENTOR	Sreenivasan et al.	
				Group Art Unit	1756	
Sheet	3	of		Examiner Name	Christopher G. Young	
				Attorney Docket Number	P90-32V30	

				U.S. PATENT DOCUMEN	TS .	
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EL	E35	5,853,446		Carre et al.	12/29/1998	
E	E36	6,251,207	B1	Schultz et al.	6/26/2001	<del>-</del>
U	E37	6,849,558	B2	Schaper	2/1/2005	
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4	NFORMATIO	ON DISCLOSURE	APPLICATION NUMBER	10/614,716
		BY APPLICANT	FILING DATE	07/07/2003
			FIRST NAMED INVENTOR	Sreenivasan et al.
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Sheet	Ι 4	of 7	Examiner Name	Christopher G. Young
3116GL	3	of  7	Attorney Docket Number	P90-32V30

					FOREIGN	PATENT DOCUMENTS			
Exami Initials		Cite No.'	Office	Foreign Patent Docum	nentBG Kind Code <sup>5</sup> (# knBown)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	т⁰
E	Z.	E38	wo	87/02935		Long et al.	5/21/1987		
		E39	JP	02192045		Mineo et al.	7/27/1990		
		E40	wo	02/22916		Pettersson et al.	3/21/2002		
		E41	EP	1460738	A2	Gimkiewicz et al.	9/22/2004		
		E42	JP	61-40845		Matsuo et al.	2/27/1986		
		E43	JP	2-248480		Yoneda et al.	10/4/1990		Π
		E44	JP	3-90345		Nobuyoshi et al.	4/16/1991		
4	,	E45	JР	9-278490		Toru et al.	10/28/1997		
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	ORMATION ATEMENT BY			APPLICATION . NUMBER	10/614,716
317	ALEMENT D	1 APPLICA	ANI	FILING DATE	07/07/2003
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				Group Art Unit	1756
Sheet	5	of	7	Examiner Name	Christopher G.
					Young
•				Attorney Docket Number	P90-32V30

		- NON PATENT LITERATURE DOCUMENTS	$\overline{}$
Examiner nitials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	1	FEYNMAN, There's Plenty of Room at the Bottom, 12/1/1959	$\top$
ER	E46		
	E47	XIA ET AL., Soft Lithography, Angew. Chem. Int. Ed., pp. 550 - 575 1/1/1998	1
	E48	NGUYEN, Asymmetric Fluid-Structure Dynamics in Nanoscale Imprint Lithography, The University of Texas at Austin, pp. 1 - 111 8/1/2001	+
	E49	Abstract of Japanese Patent 02-92603, 8/12/2004	†
	E50	Abstract of Japanese Patent 02-24848, 1/26/1990	1
	E51	SOWAH, Diamond used to Break the Mould, Retrieved 9/2/2003 from URL: http://www.electronictimes.com/story/OEG20020918S0003 9/18/2002	+
$\top$	E52	APPLICATION NO. 10/827,118, naming Inventors Watts et al., entitled A Method of Forming a Deep-Featured Template Employed in Imprint Lithography, filed 4/19/2004	<b>†</b>
	E53	Abstract of Japanese Patent 61-040845, 2/27/1986	1
4	E54	Abstract of Japanese Patent 02-248480, 10/4/1990	$\dagger$

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Attorney Docket Number

Examiner Initials*  Cite No. Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s) publisher, city and/or country where published.  Abstract of Japanese Patent 3-090345, 4/16/1991	T <sup>2</sup>
Abstract of Japanese Patent 3-090345, 4/16/1991	
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E	E	55 .	Abstract of Japanese Patent 3-090343, 4/10/1991
	E	56	Abstract of Japanese Patent 09-278490, 10/28/1997
	E	57	Abstract of Japanese Patent 61-040845, 2/27/1986
	ES	58	Abstract of Japanese Patent 02-248480, 10/4/1990
	E	59	GEHOSKI ET AL., Indium Tin Oxide Template Development for Step and Flash Imprint Lithgraphy, SPIE Microlithography Conference 2/1/2005
	E	60	DAUKSHER ET AL., Repair of Step and Flash Imprint Lithography Templates, J. Vac. Sci. Technol. B 22(6), pp. 3306-3311 11/1/2004
	E6	61	DAUKSHER ET AL., Step and Flash Imprint Lithography Template Characterization, from an Etch Perspective, J. Vac. Sci. Technol. B 21(6), pp. 2771-2776 11/1/2003
	E6	62	RESNICK ET AL., Imprint Lithography: Lab Curiosity or the Real NGL?, SPIE Microlithography Conference 2/1/2003
V	, E6	63	MANCINI ET AL., Analysis of Critical Dimension Uniformity for Step and Flash Imprint Lithography, SPIE Microlithography Conference 2/1/2003

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	ORMATION ATEMENT B			APPLICATION NUMBER	10/614,716
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				Attorney Docket Number	P90-32V30

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EC	E64	MANCINI ET AL., Hydrogen Silsesquioxane for Direct Electron-Beam Patterning of Step and Flash Imprint Lithography Templates, J. Vac. Sci. Technol. B 20(6), pp. 2896-2901 11/1/2002	
	E65	DAUKSHER ET AL., Characterization of and Imprint Results Using Indium Tin Oxide-Based Step and Flash Imprint Lithography Templates, J. Vac. Sci. Technol. B 20(6), pp. 2857-2861 11/1/2002	
	E66	NORDQUIST ET AL.Q, Critical Dimension and Image Placement Issues for Step and Flash Imprint Lithography Templates, 22nd Annual BACUS Symposium on Photomask Technology, Monterey, CA 9/1/2002	
	E67	BAILEY ET AL., Template Fabrication Schemes for Step and Flash Imprint Lithography, Microelectronic Engineering, 61-62, pp. 461-467 1/1/2002	
	E68	RESNICK ET AL., High Resolution Templates for Step and Flash Imprint Lithography, SPIE Microlithography Conference 2/1/2002	
Ÿ	E69	RESNICK ET AL., New Methods for Fabricating Step and Flash Imprint Lithography Templates, NIST-SPIE Conference on Nanotechnology 9/1/2001	
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ď	STATEMENT BY APPLICANT  (USE as many sheets as necessary)				07/07/2003		
(U					Sreenivasan et al.		
Sheet	<del></del> -	-	12	Group Art Unit	1722		
SHEEL		of		Examiner Name	NCUYEN, THUKHANH T		
				Attorney Docket Number	P90-32V30		

Examiner	Cite No.1	U.S. Palent Document			Date of Publication of	Pages, Columns, Lines,	
Initials*	CAB NO.	Kind Code <sup>2</sup> (If Innover)		Name of Palentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	
		<u> </u>	<del></del>	1	<del>,</del>		
EC	F1	2003/0180631	A1	Shiota et al.	9/25/2003		
	F2	6.664,026	B2	Nguyen et al.	12/16/2003		
	F3	6,261,469	B1	Zakhidov et al.	7/17/2001		
	F4	5,817,378		Everaerts et al.	10/6/1998		
	F5	2006/0019183	A1	Voisin	1/26/2006		
	F6	2006/0158637	A1	Kim et al.	7/21/2005		
	<b>F</b> 7	6,165,911		Calveley	12/26/2000		
	F8	2004/0219246	A1	Jeans	11/4/2004		
	F9	3,677,178		Gipe	7/18/1972		
V	F10	6,743,368	B2	Lee	6/1/2004		
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Substitute for form 1449A/PTO				Comple	Complete if Known		
	ORMATION ATEMENT B			APPLICATION NUMBER	10/614,716		
31/	AIENIENI D	I ACPLIO	A111	FILING DATE	07/07/2003		
(use	as many sheets	s as necessar)	<i>(</i> )	FIRST NAMED INVENTOR	Sreenivasan et al.		
				Group Art Unit	1722		
Sheet	2	of	2	Examiner Name	NGUYEN, THUKHANH		
	***************************************	<del></del>		Attorney Docket Number	P90-32V30		

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the

Initials*	No.'	itam (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s).	
<u> </u>	1	APPLICATION NO. 11/298,244, naming Inventors Watts et al., entitled Method of Forming a	_
EC	F11	Compliant Template for UV Imprinting, filed 12/9/2005	
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